

Case Study: Jones Lang LaSalle Staff Reduces Energy Use of Shanghai Information Tower by 15 % through No-cost Operational Measures

Project Summary

Shanghai Information Tower is a 100,000 square meter office building located in the Pudong area of Shanghai owned by China Telecom and managed by Jones Lang LaSalle (www.joneslanglasalle.cn.com). Construction of the building was completed in 2001 and the building boasts numerous advanced telecommunications and building management Since attending an eeBuildings* technologies. training in January 2003, the staff of Jones Lang LaSalle has implemented a series of no-cost operational measures that reduced energy use by 15%. As a result, Jones Lang LaSalle saves the building's owner, China Telecom, 1.23 million RMB annually.



Actions Taken

Senior management at Jones Lang LaSalle first met with eeBuildings in May 2002. Later that year, eeBuildings trained approximately 15 employees at Jones Lang LaSalle on use of the US EPA's energy performance rating system**. Impressed with the energy performance rating system and the eeBuildings training, Jones Lang LaSalle management helped to organize a larger training event in January 2003 for members of the Association of Shanghai Property Managers (ASPM). Over 100 managers of Class A office buildings in Shanghai attended the training to learn how to use the energy performance rating system and ways to reduce building energy use and cost.

Jones Lang LaSalle staff who attended the January 2003 training included Mr. James Sun, the Facility Manager at the Shanghai Information Tower and Mr. Chance Hu, an Estate Assistant in the Property & Facility Management Department at Jones Lang LaSalle. Based on case studies and operational strategies presented at the training, Mr. Sun, with the assistance of Mr. Hu, took steps to build commitment for improving the energy performance of the Shanghai Information Tower:

Benchmarked Energy Performance: First, Mr. Hu benchmarked the energy performance of the Shanghai Information Tower using U.S. EPA's energy performance rating system. The building's score of 74 indicated above-average energy performance, but there was room for improvement.



- Obtained Support of the Building Owner: Second, Mr. Sun and other Jones Lang LaSalle staff approached the building owner, China Telecom, with technical materials provided at the eeBuildings January training to show the no-cost measures they could implement to reduce the building's energy use and costs. China Telecom appreciated being informed of the energy- and money- saving opportunity and put their support behind Mr. Sun's initiative.
- Motivated Staff: Third, Mr. Sun developed a reward system to motivate staff, in which he offered to pay them 2% of the cost of the energy saved from operational improvement measures in the building.
- ◆ Implemented No-Cost Operational Measures: Over a six-month period, Mr. Sun and his staff implemented the following measures:
 - Automated HVAC Control: Programmed the building controls to turn the HVAC system on and off at specified times during the day. The system is now turned on prior to the arrival of tenants at 7:00 am and off just before tenants leave in the evening at 6:30 pm.
 - Automated Lighting Control: Programmed the building controls so that all lighting networks were operated automatically. (Previously, some lights were manually controlled.)
 - Optimized Lighting Schedule: Programmed the building controls to turn lights on only during hours of building occupation instead of 24 hours per day, as previously.

Results

Since January 2003, Jones Lang LaSalle staff have improved the energy performance rating of the Shanghai Information Tower by 10 points to 84, reduced energy use by 15%, and saved the building owner, China Telecom, 1.23 million RMB annually in energy costs.

Contact Information

To find out more about Jones Lang LaSalle in Shanghai, go to (www.joneslanglasalle.com.cn) or contact Mr. Chance Hu at, (86-21) 6393 3333 or chance.hu@ap.joneslanglasalle.com. For more information on the eeBuildings program, to find out about upcoming trainings and events, or for general information on how to reduce building energy consumption using simple, low-cost operational measures, go to www.epa.gov/eeBuildings or write to eeBuildings@epa.gov.

^{*} The U.S. Environmental Protection Agency's eeBuildings (energy-efficient Buildings) www.epa.gov/eeBuildings program helps building owners, managers, and tenants improve the energy performance of their buildings. Drawing on the expertise of ENERGY STAR, eeBuildings connects financial and environmental performance to energy efficiency.

^{**} U.S. EPA's energy performance rating system (www.epa.gov/eeBuildings/Benchmarking) is an on-line tool that allows building owners and managers to compare their buildings' energy consumption to other similar buildings worldwide. The tool rates building energy performance on a 1 to 100 scale, where 50 is considered is average energy performance. The tool accounts for differences in building size, occupancy, operating hours, plug loads, climate, and weather and is intended for use with Class A buildings maintaining international comfort standards.